

Communicable Disease Report

Hawai'i Department of Health
Communicable Disease Division

January/February 2001

Hawai'i HIV/AIDS Update

Acquired Immunodeficiency Syndrome (AIDS) surveillance activities monitor AIDS in Hawai'i through continuous collection, analysis, and dissemination of population-based information of AIDS and AIDS mortality. Hawai'i AIDS surveillance is accomplished by both active and passive case surveillance. Active surveillance is based on laboratory reporting of low CD4 counts (CD4 <200 Cells/ μ L and/or percent of total lymphocytes <14%). In addition, direct contact with physicians, review of medial records and information from death certificates are part of the active surveillance. Passive surveillance of AIDS relies upon the diagnosing physician submitting AIDS case reports to the Department of Health (DOH).

Case Reporting

AIDS: The first case of AIDS, as defined by the Centers for Disease Control and Prevention's (CDC) AIDS case definition,¹ was reported to the DOH in 1983. Hawai'i Administrative Rules Chapter 325, Section 2 require physicians to report cases of AIDS upon diagnosis. Physicians submit confidential case reports using CDC's HIV/AIDS Case Report form to the DOH AIDS Surveillance Program in a sealed confidential envelope. The AIDS Surveillance Program maintains strict security and confidentially as required by State law.

HIV: Hawai'i does not require Human Immunodeficiency Virus (HIV) case reporting at present. Proposed Hawai'i Administrative Rules changes will soon require physicians to report HIV positive individuals using an unnamed test code (UTC). The DOH estimates that there are about 2,300 to 3,200 people living in Hawai'i with HIV infection (non-AIDS).

Funding

The Hawai'i AIDS Surveillance Program is federally funded by the CDC to support national HIV/AIDS surveillance and prevention activities.

AIDS Incidence and Prevalence

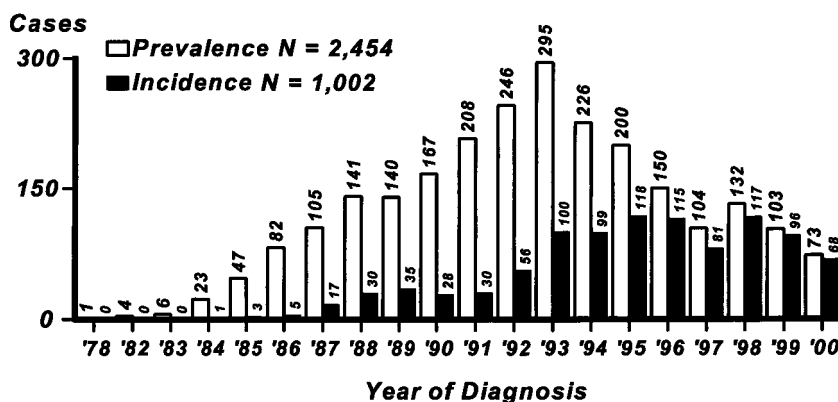
As of December 2000, 2,454 AIDS cases have been diagnosed and reported to the DOH's AIDS Surveillance Program.

Figure 1 shows AIDS incidence (the number of new AIDS cases per year), and AIDS prevalence (the number of people living with AIDS each year) from 1978 to 2000. Prevalence data collected as of the year 2000, indicates that there are 1,002 people living with AIDS in Hawai'i.

The figure shows that incidence of AIDS peaked in 1993. The 1993 peak was due to an expansion of the CDC AIDS case definition that year, resulting in the diagnosis of additional cases that previously did not meet the case definition. The development of highly active antiretroviral drug therapy (HAART), and implementation of early intervention efforts have contributed to a continuing decrease in AIDS incidence since 1993.

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Figure 1. Hawaii AIDS Incidence and Prevalence Cases 1978 - 2000



Do you Wash your Vegetables? Kaua'i Farmers Market Survey

Introduction

In recent years, foodborne disease outbreaks traced to consumption of raw fruits and vegetables have been in the news. Reports of *Salmonella*-contaminated alfalfa sprouts, *E. coli* in apple juice, and hepatitis A in strawberries alarmed consumers, and have increased awareness for the need to wash produce before consumption. Parasitic diseases may also be transmitted by consumption of unwashed vegetables. These include giardiasis, amebiasis, angiostrongyliasis, fascioliasis and toxoplasmosis.

In January a Kaua'i physician contacted the Kaua'i Department of Health (DOH) because he was concerned that consumption of unwashed vegetables from home gardens or local farmers markets might be a risk factor for exposure to *Angiostrongylus cantonensis* which causes eosinophilic meningitis. His concern was based on interviews with case patients in his practice who reportedly ate unwashed raw vegetables with no history of consumption of raw snails or slugs. He requested assistance to evaluate risk factors and promote education related to consumption of unwashed vegetables.

Preliminary Study

A preliminary microscopic survey was

conducted on market produce by Kaua'i District Health Office (DHO) laboratory staff. Samples of lettuce and won bok cabbage were purchased from two farmers markets. The outer leaves were separated from the heads, and sterile water was washed over the leaves. The wash water was microscopically examined for debris and organisms. Large amounts of debris and microbes were seen in produce that appeared to be "clean." The results prompted the DHO to conduct a risk survey.

Methods

A risk survey questionnaire was developed to determine behavior patterns regarding washing of fresh vegetables prior to consumption. It was administered to shoppers at farmers markets on the island by DHO staff or trained volunteer senior citizens of various ethnic backgrounds. Several of the surveyors were bilingual in Ilocano and English and questioned Filipino respondents in their preferred language. The volunteers were trained in approaching and questioning patrons. Prior to administering the market surveys, they assisted field-testing the questionnaire.

The survey asked respondents:

- Whether they ate raw vegetables from garden or market;
- Whether they washed the vegetables;
- Their beliefs regarding whether one could become ill from eating unwashed uncooked vegetables; and
- Their thoughts regarding why some people did not wash vegetables before eating.

The surveys were conducted at four County of Kaua'i-sponsored Sunshine Markets from May 1 to May 5, 2000. Kōloa, Līhu'e, Kapa'a and Kīlauea markets were selected because of high volumes of sales and their locations in south, east, and western areas of the island. Four or five surveyors at each market approached patrons in the parking area and asked if they would answer a few brief questions. Residents and tourists were queried.

Results

176 questionnaires were completed from the four market sites: 38 from Kōloa, 59 from Kapa'a, 49 from Kīlauea, and 30 from Līhu'e. Of the completed surveys, 169 respondents (96%) reported eating uncooked vegetables from the market, and 125 (76%) reported eating uncooked vegetables from their own or a friend's garden. Results are given below.

Table 1: Respondents reporting Washing Uncooked Vegetables From a Farmers Market (N=169)

Response	Number	Percent
Always	149	88
Most of the Time	16	10
Sometimes	4	2
Never	0	0

Responses were similar for handling of garden vegetables (Table 2).


Table 2: Respondents reporting Washing Uncooked Vegetables From a Home Garden (N=125)

Response	Number	Percent
Always	108	86
Most of the Time	13	10
Sometimes	3	2
Never	1	1

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Communicable Disease Report

Communicable Disease Division	586-4580
Epidemiology Branch	586-4586
Tuberculosis Disease Control Branch	832-5731
Hansen's Disease Control Branch	733-9831
STD/AIDS Prevention Branch	733-9010
STD Reporting	733-9289
AIDS Reporting	733-9010
Information & Disease Reporting	586-4586
After-hours Emergency Reporting	247-2191 <small>(State Operator)</small>
After-hours Neighbor Island Emergency Reporting	800-479-8092



The + Health State
HAWAII STATE DEPARTMENT OF HEALTH

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Vegetables

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Regarding perceptions of patrons regarding other people's vegetable handling practices,

- 151 people of 172 (88%) responded that they believed a person could get sick from eating unwashed vegetables,
- 15 (9%) said no, and
- six (3%) did not know.

Responses to the question that asked reasons for not washing vegetables included the following:

- 41 - being lazy (37%),
- 17 - not having time (15%),
- 17 - "the vegetables look clean" (15%),
- 15 - people are not aware there is risk (14%), and
- 20 - no reason (18%).

Discussion

The aims of this study were to 1) determine if people were aware that there is the risk of disease from eating unwashed uncooked vegetables, and 2) to determine the practice of market patrons related to washing of fresh vegetables prior to consumption. Farmers markets were selected because produce is sold directly from the farmer to market customers. Ninety-eight percent of market patrons who ate uncooked vegetables purchased at the Sunshine Market reported they washed their vegetables always or most of the time. Ninety-seven percent reported washing uncooked vegetables from their garden always or most of the time. The expression "most of the time" was not quantified. These responses may be biased, as respondents could be embarrassed if they answered "No."

The reason for including the open-ended question - "Why do you think some people do not wash their vegetables before eating?" - was to determine respondents attitudes about vegetable washing behavior that might be useful for developing educational materials.

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Recommended Childhood Immunization Schedule - United States, 2001

The Recommended Childhood Immunization Schedule for 2001 was published in the January 12, 2001 issue of the Morbidity and Mortality Weekly Report (MMWR) and is approved by the Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians, and the American Academy of Pediatrics. The following is a condensed version of the updated recommendations.

Each year, the Center for Disease Control and Prevention's ACIP reviews the recommended childhood immunization schedule to ensure that it remains current with changes in manufacturers' vaccine formulations, revisions in recommendations for the use of licensed vaccines, and recommendations for newly licensed vaccines. The changes that have occurred since the January 2000 publication follow.

Pneumococcal Conjugate Vaccine

In February 2000, the Food and Drug Administration licensed a heptavalent pneumococcal polysaccharide-protein conjugate vaccine (PCV) (Prevnar™) for use among infants and young children. All children aged 2-23 months should receive four doses of PCV intramuscularly at ages 2, 4, 6, and 12-15 months. ACIP also recommends the vaccine for children aged 24-59 months who are at increased risk for pneumococcal disease (e.g. children with sickle cell hemoglobinopathies, HIV infection, and other immunocompromising or chronic medical conditions). For these children, ACIP recommends two doses of PCV administered 2 months apart followed by one dose of a 23-valent pneumococcal polysaccharide vaccine (PPV23) administered two or more months after the second dose of PCV.

The ACIP also recommends that PCV be considered for all other children aged 24-59 months, with priority given to children aged 24-35 months, American Indian/Alaska Native and black children, and children who attend child-care centers. ACIP recommends one dose of PCV for children in these groups.

Editor's Note: Please see the article on the new pneumococcal conjugate vaccine in the November/December 2000 issue of the Communicable Disease Report.

Hepatitis A Vaccination Recommendation

The ACIP continues to recommend hepatitis A vaccine for routine use in some states and regions (Hawai'i is not included in those states where hepatitis A vaccine is recommended for routine use).

Vaccine Information Statements

The National Childhood Vaccine Injury Act requires that all health-care providers give to parents or patients copies of Vaccine Information Statements before administering **each** dose of the vaccines listed in this schedule. Vaccine Information Statements, developed by CDC, can be obtained from CDC's World-Wide Web site, <http://www.cdc.gov/nip/publications/VIS>. Instructions on use of the Vaccine Information Statements are available at <http://www.cdc.gov/nip/publications/VIS/vis-Instructions.pdf>.

For further details, please see the enclosed 2001 Recommended Childhood Immunization Schedule, or call the Hawai'i Immunization Program at (808) 586-8332.

REFERENCE

Centers for Disease Control and Prevention. Recommended Childhood Immunization Schedule - United States, 2001. *MMWR*, 2001;50 (No. 1): 7-10.

Cases of AIDS reported over three time periods are shown in Table 1, comparing frequencies of AIDS cases for sex, race/ethnicity, risk; and rates by county².

Sex

Men still account for the majority of AIDS cases in the State. However, the percentage of AIDS cases in males has decreased from 97% in the years before 1990 to 91% during 1995 - 1999 (the most recent period). Concurrently, the percentage of AIDS cases among females has increased from 3% prior to 1990 to 9% in the the most recent period.

Age

The percentage and number of AIDS cases remains highest for those aged 30-39 years over the three time periods with 46% before 1990, 44% in 1990 – 1994 and 44% in the most recent period. The percentage of AIDS cases in the 40-49 year age group increased from 26% before 1990 to 34% in the most recent period. The percentage of AIDS cases in the over 49-year age group increased from 9% before 1990 to 12% in the most recent period. At the same time, the proportion of AIDS cases for the 20-29 year age group decreased from 20% before 1990 to 9% in the most recent period. There have only been 23 pediatric AIDS cases reported from 1983 to 1999. The 13-19 year old age group accounted for less than one percent of all cases for all three time periods, and the 0 - 13 year old age group has also accounted for less than one percent of all AIDS cases.

Race/Ethnicity

Caucasians account for the majority of AIDS cases in Hawaii (64%). During the three time periods, the percentage of AIDS cases in Caucasians decreased, while AIDS incidence has increased among other racial/ethnic groups. Hawaiians accounted for the second highest number of AIDS cases. The percentage of AIDS cases in Hawaiians has decreased from 12% in the 1990-1994 period to 10% in the most recent period.

TABLE 1: AIDS Incidence for Three Time Periods

	Before 1990	1990 – 1994	1995 - 1999	Cumulative Total (1983 –1999)
	% (Number)	% (Number)	% (Number)	% (Number)
Cases	21 (481)	46 (1,085)	33 (779)	100 (2,345)
AIDS Cases by Sex				
Male	97 (465)	95 (1,026)	91(709)	94 (2,200)
Female	3 (16)	5 (59)	9 (70)	6 (145)
AIDS Cases by Age				
Pediatrics (<13)	<1 (2)	1 (11)	<1 (2)	<1 (15)
13-19	<1 (1)	<1 (5)	<1 (2)	<1 (8)
20-29	20 (95)	13 (141)	9 (69)	13 (305)
30-39	46 (219)	44 (480)	44 (344)	44 (1,043)
40-49	26 (123)	29 (319)	34 (266)	30 (708)
>49	9 (41)	12 (129)	12 (96)	11 (266)
AIDS Cases by Race/Ethnicity*				
Caucasian	74 (357)	63 (685)	58 (455)	64(1,497)
Hawaiian	7 (35)	12 (127)	10 (77)	5 (239)
Filipino	5 (24)	4 (43)	7 (51)	5 (118)
Hispanic	4 (19)	5 (50)	6 (50)	5 (119)
Afr. Amer.	2 (11)	5 (49)	5 (41)	4 (101)
AIDS by Risk Behavior				
MSM	81(390)	79(856)	71(552)	77(1,798)
IDU	4 (18)	7 (74)	9 (72)	7 (164)
MSM/IDU	10 (48)	6 (68)	6 (46)	7 (162)
Heterosexual	1 (7)	5 (49)	8 (59)	5 (115)
Other	3 (18)	4 (38)	6 (50)	5 (106)
AIDS Cases by County				
County	Before 1990 Rate**/Number	1990 – 1994 Rate/ Number	1995 – 1999 Rate/ Number	Cumulative Total (1983 –1999) % (Number)
Honolulu	46(375)	92 (788)	63 (552)	73 (1,715)
Hawaii	50 (56)	116 (151)	70 (99)	13 (306)
Maui	36 (33)	89 (96)	81 (96)	10 (225)
Kauai	36 (17)	93 (50)	57 (32)	4 (99)

*Only five race/ethnic group data are shown

**Rate is cases per 100,000 population

On the other hand, the percentage of AIDS cases in Filipinos has increased from 4% in the 1990-1994 period to 7% in the most recent period. In addition, the percentage of AIDS cases in Hispanic and African Americans has also increased.

Risk Behaviors

Men who have sex with men (MSM) account for the most frequently reported risk behavior among men diagnosed in Hawai'i. The frequency of MSM declined from 81% before 1990 to 71% in the most recent period. The second most common risk behavior was injection drug use (IDU), accounting for 7% of AIDS cases. The combination category of MSM/IDU was third, also accounting for 7% of AIDS cases. The frequency of MSM/IDU decreased from 10% before 1990 to 6% in the most recent period. At the same time the percentages of other

risk behaviors increased. The number of AIDS cases transmitted through heterosexual behavior slightly increased since 1990, with more than half of the female cases (53%) being infected by heterosexual contact.

County

Cumulatively, 73% of AIDS cases have been diagnosed in the City and County of Honolulu. However, Hawai'i County had the highest AIDS rate (cases/100,000 population) for the 1983-1989 and 1990 – 1994 periods. In the most recent period, Maui had the highest AIDS rate. Case rates decreased in each county during the most recent period in comparison with 1990–1994.

United States HIV/AIDS Update

- Through 1999, over 850,000 adults

HIV/AIDS Update

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and children are estimated to be living with HIV/AIDS. 79% were men (670,000), 2% women (170,000) and 1% children (10,000).³

- In 1999, 40,000 new HIV infections were reported. As of June 2000, 130,352 cases were reported as HIV (non AIDS) infection; among these were 128,289 adults and 2,063 children.
- As of June 2000, 753,907 persons were reported as AIDS cases, with 438,795 deaths. An estimated 311,701 persons were reported to be living with AIDS.⁴ AIDS is now the fifth leading cause of death for people 25 to 44 years of age. In 1999, 46,400 new AIDS infections were reported.⁵

Worldwide HIV/AIDS Update⁶

- The number of people newly infected with HIV in 2000 was 5.3 million, including 4.7 million adults, 2.2 million women 600,000 children <15 years of age.
- As of December 2000, the number of people living with HIV/AIDS was 36.1 million, including 34.7 million adults, 16.4 million women, and 1.4 million children <15 years of age.
- The number of AIDS deaths in 2000 was 3 million, including 2.5 million adults, 1.3 million women and 500,000 children <15 years of age.
- The cumulative number of AIDS deaths is 21.8 million since the beginning of the epidemic, including 17.5 million adults, 9 million women and 4.3 million children <15 years of age.

HIV/AIDS-Related Internet Websites:

- Hawaii AIDS data: AIDS Surveillance Quarterly Report
http://www.state.hi.us/doh/resource/comm_dis/std_aids/aids_rep/
- National HIV/AIDS data: HIV/AIDS Surveillance Report
<http://www.cdc.gov/hiv/stats/hasrlink.htm>
- HIV/AIDS reporting guidelines: Guidelines for National Human Im-

munodeficiency Virus Case Surveillance, Including Monitoring for Human Immunodeficiency Virus Infection and Acquired Immunodeficiency Syndrome

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4813a1.htm>.

- HIV Treatment Guidelines:
http://hivinsite.ucsf.edu/medical/tx_guidelines/index.html.
- Global Report: AIDS Epidemic Update
http://www.unaids.org/wac/2000/wad00/files/WAD_epidemic_report.htm.

Hawai'i AIDS Epidemiology Publications

AIDS data are disseminated through publication and distribution of two documents. *The AIDS Surveillance Quarterly Report* is prepared in each quarter (March/June/September/December) and distributed to approximately 900 subscribers including all AIDS reporting sources statewide. The *Epidemiological Profile of HIV/AIDS in Hawai'i*, is distributed annually to Community Planning Groups, AIDS Community Care Teams, and to any other agency requesting current data. These organizations use information from the *Epidemiological Profile* to help plan comprehensive HIV/AIDS prevention and care activities.

For more information, please contact the DOH AIDS Surveillance Unit in Honolulu at (808) 733-9010.

Editor's Note: The 2000 incidence on the accompanying graph differs from that reported in the Surveillance Summary article. The cases reported in the graph are by date of diagnosis, while cases reported in the Surveillance Summary table are by date of report.

References.

¹ Centers for Disease Control and Prevention, *What Have We Learned from HIV/AIDS Surveillance?* HIV/AIDS Surveillance Update, June 2000, p 6-48.

² Borthakur, P.B. *An Update of Hawaii's AIDS Epidemic*, AIDS Surveillance Quarterly Report, Sep. 2000, pp 4-6.

http://www.state.hi.us/doh/resource/comm_dis/std_aids/aids_rep/

³ American Association of World Health. World AIDS Day 2000, AIDS: All Men-Make a Difference, AIDS in the United States, p 8. <http://www.aawhworldhealth.org>.

⁴ Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, Table 1. *Person reported to be living with HIVinfection and with AIDS, by area and age group, reported through June 2000*, Midyear Edition, Vol. 12, No1, p 5. <http://www.cdc.gov/hiv/stats/hasrlink.htm>.

⁵ Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, Table 2. *AIDS cases and annual report per 100,000 populations, by age group, reported through December 1999, United States*, year-end edition Vol. 11, No.2, <http://www.cdc.gov/hiv/stats/hasrlink.htm>.

⁶ Global Summary of the HIV/AIDS Epidemic, 2000
http://www.unaids.org/wac/2000/wad00/files/WAD_epidemic_report.htm.

Submitted by Pritty B. Borthakur, M.Sc., B.Phil., M.S., HIV/AIDS Surveillance Coordinator, AIDS Surveillance Program, STD/AIDS Prevention Branch

FLU SURVEILLANCE UPDATES

During the flu season (October through May), current influenza surveillance data is posted weekly on the Department of Health internet website. Case counts have been increasing recently. For current information on surveillance, sentinel physician reporting of influenza-like illnesses, isolates and strain typing, and other information on influenza and flu vaccines, please see www.hawaii.gov/doh/resource/comm_dis/flu/index.htm.

Use of Diphtheria Toxoid-Tetanus Toxoid-Acellular Pertussis Vaccine as a Five-Dose Series

Introduction

Supplemental recommendations of the Advisory Committee on Immunization Practices (ACIP) regarding the use of Diphtheria Toxoid-Tetanus Toxoid-Acellular Pertussis vaccine as a five-dose series were published in the Morbidity and Mortality Weekly Report (MMWR) on November 17, 2000. The following is a condensed version of the ACIP's recommendations.

Four vaccines containing diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) are currently licensed for use among infants and children in the United States; two of these, ACEL-IMUNE® (Lederle Laboratories) and Tripedia® (Aventis Pasteur, Inc.) are licensed for use as the complete five-dose series. The other two licensed vaccines (Infanrix®, SmithKline Beecham Biologicals, and Certiva™, North American Vaccine, Inc.) are approved for use for the first four doses of the five-dose series, and for completing the DTaP series among children who began the series with diphtheria and tetanus toxoids and whole-cell pertussis vaccine.

Reactogenicity of DTaP Vaccines When Administered as Fourth and Fifth Doses of a Series

Data regarding use of a single DTaP vaccine for the complete five-dose series are limited, but available data demonstrate a substantial increase in the frequency and magnitude of local reactions after the fourth and fifth doses. Increases in the frequency of fever after the fourth dose have also been reported, although increased frequencies of other systemic reactions (e.g., fretfulness, drowsiness, or decreased appetite) have not been observed.

Despite the increased reactogenicity of the fourth and fifth doses, acellular pertussis vaccines remain the preferred vac-

cines for preventing pertussis, diphtheria, and tetanus among children because of the improved safety profile when compared with whole-cell pertussis vaccines.

Adverse Reactions After the Fourth Dose of DTaP When Administered as a Four-Dose Series

Increases in erythema, swelling, and pain at the injection site and increases in fever have been reported with the fourth dose as compared with the first dose for each of the currently licensed DTaP vaccines. These reactions typically have onset within 2 days after vaccination and resolve completely without sequelae.

Adverse Reactions After the Fifth Dose of DTaP When Administered as a Five-Dose Series

Data regarding the reactogenicity of a fifth dose of DTaP administered after four doses of the DTaP vaccine are limited, but are available for three of the four currently licensed DTaP vaccines. These data demonstrate further increases in the local reactogenicity of the fifth dose compared with the fourth dose. No data are available regarding the frequency of adverse events after a fifth dose of Certiva™.

Limb Swelling After Booster Doses of DTaP

Swelling involving the entire thigh or upper arm has been reported after booster doses of different acellular pertussis vaccines. The pathogenesis of both substantial local reactions and limb swelling is unknown.

Supplemental ACIP Recommendations for Using DTaP Vaccines

Data are limited regarding differences in reactogenicity among currently licensed acellular pertussis vaccines. Increases in frequency and magnitude of substantial local reactions at the injection site with

increasing dose number have been reported for all currently licensed DTaP vaccines. Swelling of the thigh or entire upper arm after receipt of fourth and fifth doses of acellular pertussis vaccines has been documented for multiple products from different manufacturers. However, because reports of these reactions have generally not been solicited during safety studies, the frequency is unknown, and the absence of reports does not establish a lack of reaction after receipt of particular DTaP vaccines. Data are insufficient to establish that mixed sequences of DTaP vaccines from different manufacturers are associated with higher or lower frequencies of these reactions than receipt of a single product for the entire DTaP series. Additional data regarding the reactogenicity of DTaP vaccines when administered as a five-dose series are needed.

Whether children who experience entire limb swelling after a fourth dose of DTaP are at increased risk for this reaction after the fifth doses is unknown. Because reports to date indicate that the reactions are self-limited and in recognition of the benefits of the preschool dose of DTaP, a history of extensive swelling after the fourth dose should not be considered a contraindication for receipt of the fifth dose of the series.

Parents or caregivers of children receiving the fourth and fifth doses of the DTaP series should be informed of the increases in reactogenicity that have been observed. Although available data demonstrate that these reactions are self-limited and resolve without sequelae, they might be clinically indistinguishable from other conditions (e.g., cellulitis) that require treatment. Therefore, providers must make decisions regarding evaluation and management of children with suspected reactions after DTaP vaccination on a case-by-case basis.

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Epidemiology and Prevention of Vaccine-Preventable Diseases

A National Immunization Program and Public Health Training Network Satellite Broadcast

March 15, 22, 29, 2001 7-10:30 AM Hawaii Time
April 5, 2001 6-9:30 AM Hawaii Time

This live interactive program will provide the most current information available in the constantly changing field of immunization. **Session #1** will cover principles of vaccination, general recommendations on immunization, and strategies to improve immunization coverage levels. **Session #2** will cover pertussis, pneumococcal disease (childhood), polio, and hib. **Session #3** will cover measles, mumps, rubella, varicella, and vaccine safety. **Session #4** will focus on hepatitis B, hepatitis A, influenza, and pneumococcal disease (adult).

Goal

To improve immunization practices in the United States.

Objectives

At the end of this course, participants should be able to:

- Describe the difference between active and passive immunity
- List two characteristics of live vaccines and inactivated vaccines

For each vaccine-preventable disease:

- Describe the disease and the causative agent
- List the groups at highest risk
- Identify those for whom routine immunization is recommended
- State the characteristics, schedule, contraindications, and adverse reactions for the vaccine used to prevent the disease.

Continuing Education Credit

Continuing education credit will be offered for a variety of professions, based on 14 hours of instruction. Pharmacy credits will be available.

Target Audience

Immunization providers and other medical professionals, medical residents, health professional students, and policy makers.

Faculty

William L. Atkinson, MD, MPH, and **Raymond Strikas, MD**, both Medical Epidemiologists, and **Donna Weaver, MN, RN**, Nurse Educator, National Immunization Program, Centers for Disease Control and Prevention.

Registration and Materials

A \$25 course registration fee covers registration and the text *Epidemiology and Prevention of Vaccine-Preventable Diseases*, 6th edition (2000), 2nd printing, aka *The Pink Book*.

Send registration form and \$25 check. Check should be payable to **State Director of Finance, c/o Judy Strait-Jones, Hawaii Immunization Program, P.O. Box 3378 Honolulu, HI 96801**.

Registration forms and payment must be received by March 12, 2001. Checks only please.

Confirmations will be faxed to registrants. Please call Judy Strait-Jones at (808) 586-8321 if you have not received confirmation by March 13.

REGISTRATION

NAME _____

TITLE _____

ORG _____

FAX _____

PHONE _____

E-MAIL _____

ADDRESS _____

SITE (mark one):

☐ State Lab, Pearl City

☐ State Hospital, Kaneohe

☐ DOH/Kinai Hale Board Room

☐ Maui (to be confirmed)

☐ DOH Environmental Health Bldg, Hilo

☐ Kapaa Middle School, Kauai (to be confirmed)

Mail registration form and \$25 check. Check should be payable to **State Director of Finance, c/o Judy Strait-Jones, Hawaii Immunization Program, P.O. Box 3378, Honolulu, HI 96801**.

Hawai'i Surveillance Alert:

Poliomyelitis in the Dominican Republic and Haiti

Since July 12, 2000, 19 persons with acute flaccid paralysis (AFP) have been identified in the Dominican Republic. These include six laboratory-confirmed cases with poliovirus type 1 isolates (wild type 1 poliovirus causes most of the AFP in countries where polio is still endemic). All AFP cases were in children who were either unvaccinated or had received fewer than the four recommended doses. In Haiti, a single case of laboratory-confirmed poliovirus type 1 has been reported to date. The last reported case of AFP had a date of onset of November 18, 2000. Mass polio immunization campaigns are underway in both countries to stop the outbreak. The Dominican Republic and Haiti have about 8 million people each and share the island of Hispaniola in the Caribbean.

It appears the outbreak virus is derived from oral polio vaccine (OPV). This vaccine-derived virus has approximately 97% genetic identity to the parent vaccine strain, and appears to have recovered neurovirulence and transmissibility characteristics typical of wild poliovirus type 1. Nucleotide sequencing suggests that the virus has been circulating for about 2 years. The origin and continued circulation of this strain is in neighborhoods where routine vaccination coverage is low. Poor sanitation in these rural and under developed neighborhoods may also have facilitated spread of the virus.

This is the first documented instance of a vaccine-derived poliovirus type 1 outbreak. A similar but not identical outbreak was reported in Egypt with vaccine-derived type 2 poliovirus. The type 2 poliovirus circulated during a ten-year period and caused more than 30 cases of paralytic polio, ending in 1993. Common to both outbreaks were unvaccinated people. The outbreak in Egypt was brought under control when children were immunized with OPV.

Polio Vaccination before Travel

Because there is frequent travel between the United States and the Dominican Re-

public and Haiti, the Centers for Disease Control and Prevention (CDC) has advised all State Health Departments to enhance their poliomyelitis surveillance, especially in communities with large immigrant populations from Haiti or the Dominican Republic. The CDC has issued a travel advisory recommending that all persons traveling to the Dominican Republic and Haiti be up-to-date on their polio vaccinations. Adults should receive one lifetime booster of polio vaccine. School-age children and adolescents who completed a primary series may receive an additional dose of inactivated polio vaccine (IPV) before travel. Infants and children who are up-to-date on their routine immunization schedule and have at least two (preferably three) doses of poliovirus vaccine should be adequately protected.

Poliomyelitis Infection and Illness

Description. Poliovirus is highly virulent among susceptible persons, with infection rates of nearly 100% among susceptible household contacts of children, and higher than 90% among susceptible household contacts of adults.

Epidemiology. Poliovirus is spread via the fecal-oral route, or through respiratory secretions. The incubation period for poliomyelitis ranges from 3 to 35 days. Cases are most infectious from 7-10 days before and after the onset of symptoms, but poliovirus may be present in the stool for 3 to 6 weeks. The risk of contracting poliomyelitis in the United States is minimal because vaccination rates against polio are high.

Clinical Syndromes. In most cases (72%), poliovirus infection is asymptomatic. In other cases (24%), infection causes a viral syndrome with a few days of any combination of the following signs and symptoms: fever, malaise, drowsiness, headache, nausea, vomiting, constipation, and sore throat. Much less commonly, poliovirus infection presents as aseptic meningitis (4%), or as paralysis (0.1-2%).

Paralytic Polio. Paralytic poliomyelitis typically presents with rapid onset of flaccid paralysis and fever. Paralysis progresses to its maximal extent within a few days, and usually progresses no further once fever resolves. Paralysis is typically asymmetric, associated with decreased or complete loss of deep tendon reflexes and without involvement of sensory nerves. Paralysis if not complete is usually more marked proximally.

Poliomyelitis Surveillance in Hawai'i

The Hawai'i Department of Health (DOH) advises health professionals that poliovirus infection be considered in the differential diagnosis of all patients presenting with acute flaccid paralysis. Clinicians seeing such patients should immediately contact the DOH (see below) and obtain stool, throat, and cerebrospinal fluid for viral culture, and acute and convalescent serum to measure titers of neutralizing antibodies to poliovirus.

The DOH recommends that patients with aseptic meningitis who have visited the Dominican Republic or Haiti within the past four weeks have stool and cerebrospinal fluid samples taken for viral culture. Clinicians should immediately report such patients to the DOH.

Report the above cases to the DOH at the following numbers:

O'ahu: (808) 586-4586

Hawai'i: (808) 933-0912

Maui: (808) 984-8213

Kaua'i: (808) 241-3563

Emergency After Hours: (808) 247-2191

For more information, please contact the Hawai'i Immunization Program in Honolulu at (808) 586-8332.

Submitted by Steven Terrell-Perica, M.A., M.P.H., M.P.A., Centers For Disease Control and Prevention Public Health Advisor to the Hawai'i Immunization Program, Epidemiology Branch.

2000 Index of Articles

The following 33 articles were published in 2000 in the Communicable Disease Report. They are listed alphabetically by subject, with the date of publication and the Branch/program that authored the article.

Articles

Communicable Disease Division Scientific Publications, Recent (MAY-JUN) (1)
Critters, Beware Hawaiian (MAY-JUN) (1)
Disease, Notifiable, Amendments (MAR-APR) (2)
Disease Outbreaks, 1999 Summary of (JUL-AUG) (3)
Ehrlichiosis, No Human, in Hawai'i (MAR-APR) (1)
Electronic Health Alert System (NOV-DEC) (4)
Gonorrhea in Hawai'i at the Millennium (JAN-FEB) (5)
Gonorrhea, Emerging Antibiotic-Resistant Infections (MAR-APR) (5)
Hansen's Disease in Hawai'i, Active Surveillance For (MAR-APR) (6)
Hantavirus, No Fatality in Hawai'i (MAY-JUN) (1)
Hepatitis C Training (SEP-OCT) (1)
HSPAMM Program, The (NOV-DEC) (7)
Immunization, 2000 Recommended Childhood Schedule (JAN-FEB) (8)
Immunization Program, Hawai'i: Important Telephone Numbers (SEP-OCT) (8)
Index of Articles, 1999 (JAN-FEB) (1)
Influenza Pandemic, Preparing for the Next (MAY-JUN) (8)
Influenza Surveillance Notice, Important (NOV-DEC) (3)
Influenza Vaccine Shortage (SEP-OCT) (8)
Leptospirosis, Clinical Diagnosis and Management of (MAR-APR) (9)
Minette, Aloha Dr.! (MAR-APR) (1)
Penicillin G Availability, Update: (JAN-FEB) (2)
Pertussis in Hawai'i: 1990-1999 (NOV-DEC) (3)
Pneumococcal Disease among Infants and Young Children, Preventing (NOV-DEC) (8)

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Vegetables

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The reasons given by respondents about why people don't wash their vegetables must be viewed in the context of one person's opinion of another's behavior. The 88% of respondents who claimed to always wash their vegetables were giving their opinions for behavior of others who don't always wash raw vegetables. The most frequent answer given was that the person was "lazy". Some even went further and said, "They're stupid!" One surveyor reported that two elderly respondents would not give reasons why others might not wash vegetables, but answered, "You MUST wash!" The second most frequently given reason was related to time constraints, with responses like "too much in a hurry", and "no time." Some felt that the clean appearance of vegetables encouraged people to by-pass washing, especially if they were in a hurry to prepare dinner for a hungry family.

People who answered the questionnaire were very diverse in residence (local vs. tourists), ethnicity, age, economic status, dietary preferences and food preparation and cooking practices. However, the questionnaires did not quantify the above characteristics of those interviewed.

Another limitation to the survey was that the information was self-reported. The surveyors were identified with DOH identification tags or "Department of Health Volunteer" name-tags on clothing. They introduced themselves, "I am from the Department of Health". Respondents could have answered what they thought the surveyor wanted to hear or what they thought was the correct answer rather than reporting their actual behavior.

In spite of the survey's limitations, it appears that 97 to 98% of Sunshine Market patrons are aware that they should be

washing their uncooked vegetables before eating them. Whether they actually do wash them could not be determined by this survey.

Conclusions and Recommendations

Kaua'i Sunshine Market patrons appear to understand that there is risk of illness if raw vegetables are not washed before eating. The majority of patrons said they wash market and garden vegetables before eating them. However, some patrons do not thoroughly wash the produce or do not wash them at all, and face the risk of illness from microbes on the produce. The County and State agencies concerned with consumer and food safety need to educate market vendors to wash farm produce with water suitable for drinking prior to marketing it. Information should also be distributed to consumers advising them to wash vegetables and fruit before consumption. It is recommended that all farmers markets should post a banner stating: "Washing your produce is just common sense."

For more information, please call the Kaua'i District Health Office in Lihue at (808) 241-3563.

Acknowledgements

This project was a joint effort of the Kaua'i District Health Office Epidemiology, Health Promotion and Education, and Laboratory Branch staff. The DHO staff wishes to thank the following senior volunteers for their assistance with this project: Harriet Albao, Felisa Batara, Pracides Busto, Dorothy and Bob Kunio-ka, Evonne Mukai, Robert Nakashima, Haruko Otsubo, and Jennie Yukimura. Thank you is also extended to the staff of the Retired Senior Volunteer Program (RSVP) for their assistance identifying and contacting the volunteers.

Submitted by Jo Manea, Epidemiological Specialist, Kaua'i District Health Office.

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Polio Prevention in the United States (MAY-JUN) (8)
 Sugi! Aloha Mits (SEP-OCT) (1)
 Surveillance Summary, 1999 (JAN-FEB) (1)
 Ten Commandments, The (How to Perform a Disease Outbreak Investigation) (MAR-APR) (3)
 Toxoplasmosis and Cats (SEP-OCT) (10)
 Tuberculosis Cases Discovered, How Are (JAN-FEB) (2)
 Tuberculosis in Hawai'i, New Targeted Testing Program for (SEP-OCT) (11)
 Vaccine Information Statements, Use of (MAR-APR) (8)
 Vaccines for Children Program Update, Hawai'i (MAR-APR) (8)
 West Nile Disease Continues on the Mainland (SEP-OCT) (1)

Branches/Programs Submitting Articles and the Number of Articles Submitted

(1) Epidemiology Branch - Zoonoses (10)
 (2) Communicable Disease Division - Administration (3)
 (3) Epidemiology Branch - Investigations (4)

Diphtheria Vaccine

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Interchangeable Use of Acellular Pertussis Vaccines

Data are insufficient to document the safety, immunogenicity, and efficacy of using DTaP vaccines from different manufacturers in a mixed sequence. For this reason, the ACIP recommends that whenever feasible, the same brand of DTaP vaccine should be used for all doses of the vaccination series. However, the vaccine provider might not know or have available the type of DTaP vaccine previously administered to a child. Neither circumstance should present a barrier to administration of DTaP vaccine and any of the available licensed DTaP vaccines can be used to complete the vaccination series.

For further details or to view, download and print the entire ACIP Supplemental Recommendations, visit the Center for Disease Control and Prevention's web site, http://www.cdc.gov/MMWR/mmwr_rr.html.

For further information, please call the Hawai'i Immunization Program in Honolulu at (808) 586-8332.

REFERENCE

Centers for Disease Control and Prevention. Use of Diphtheria Toxoid-Tetanus Toxoid-Acellular Pertussis Vaccine as a Five-Dose Series - Supplemental Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*, 2000;49 (No. RR-13):1-8.

(4) Epidemiology Branch - Bioterrorism (1)
 (5) STD/AIDS Prevention Branch - STD/AIDS Prevention Program (2)
 (6) Hansen's Disease Control Branch - (1)
 (7) STD/AIDS Prevention Branch - HSPAMM Program (1)

(8) Epidemiology Branch - Hawai'i Immunization Program (8)
 (9) Kaua'i Medical Clinic at the Northshore Clinic (1)
 (10) Environmental Health Services Division - Administration (1)
 (11) Tuberculosis Control Branch (1)

2000 Surveillance Summary

The following are provisional 2000 state and county communicable disease totals by date of report and incidence rate (cases/100,000 population). The diseases listed correspond to those in the Communicable Disease Surveillance graph that appears on page 11. Incidence rates are in **bold** print. Changes in state case totals from 1999 are also listed.

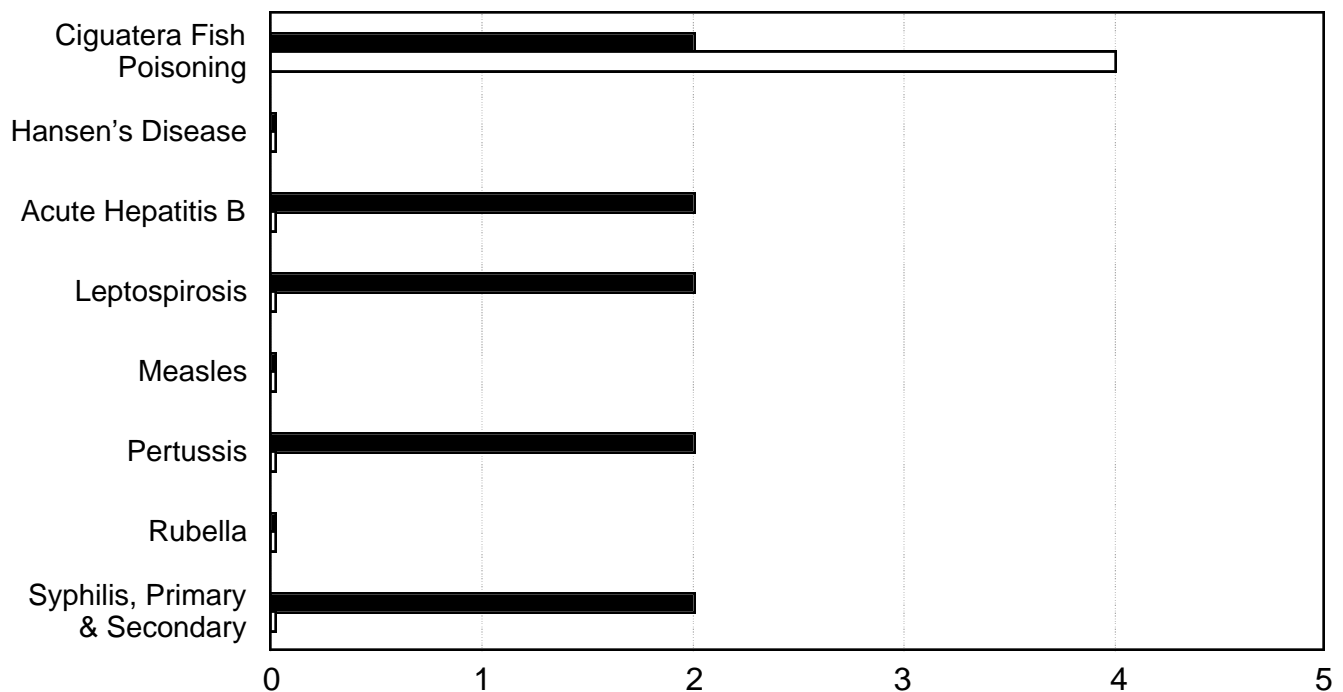
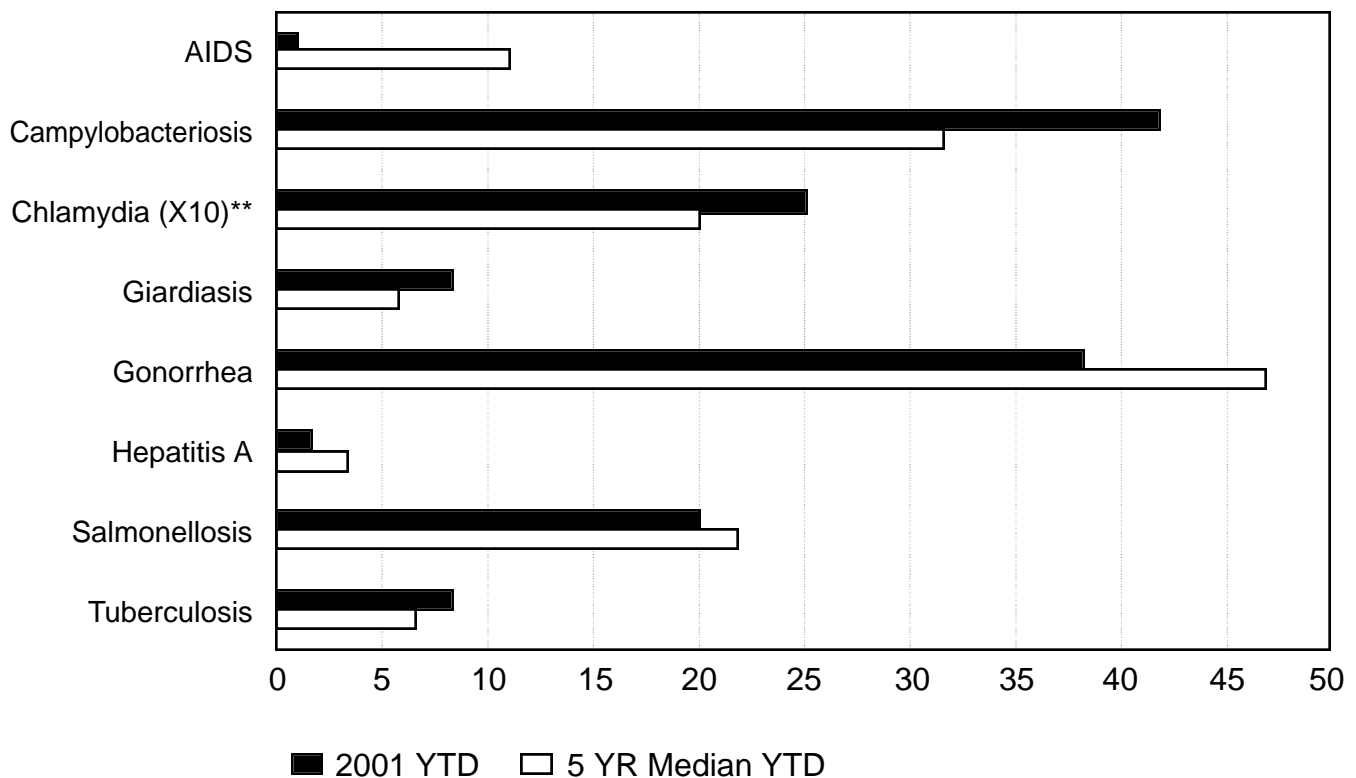
Disease	2000 Cases and Incidence Rates by State and County										
	State	Change	Rate	Honolulu	Rate	Hawaii	Rate	Maui	Rate	Kauai	Rate
AIDS	110	8	9.3	81	9.4	9	6.3	16	13.1	4	7.1
Campylobacteriosis	838	-41	70.7	625	72.3	97	68.1	88	72.1	28	49.5
Chlamydia	3477	365	293.3	2854	330.1	331	232.5	227	186.1	45	79.6
Giardiasis	106	-8	8.9	74	8.6	12	8.4	14	11.5	6	10.6
Gonorrhea	440	-23	37.1	391	45.2	24	16.9	20	16.4	4	7.1
Hepatitis A	27	3	2.3	21	2.4	4	2.8	2	1.6	0	
Salmonellosis	236	-105	19.9	193	22.3	23	16.2	16	13.1	4	7.1
Tuberculosis	136	-48	11.5	107	12.4	7	4.9	20	16.4	2	3.5
Ciguatera Poisoning	38	-5	3.2	14	1.6	9	6.3	10	8.2	5	8.9
Hansen's Disease	15	-7	1.3	9	1.0	6	4.2	0		0	
Acute Hepatitis B	15	2	1.3	11	1.3	2	1.4	1	0.8	1	1.8
Leptospirosis*	36	-5	3.0	10	1.2	16	11.2	1	0.8	9	15.9
Measles	4	1	0.3	3	0.3	0		1	0.8	0	
Pertussis	32	2.7	-3	12	1.4	2	1.4	8	6.6	10	17.7
Rubella	0			0		0		0		0	
Syphilis, Primary and Secondary	2	-2	0.2	0		2	1.4	0		0	

* = Incomplete Reporting.

Communicable Disease Surveillance

Selected Diseases by Date of Report*

Hawai'i, 2001 Year-to-date Through January



* These data do not agree with tables using date of onset or date of diagnosis.

**The number of cases graphed represent 10% of the total number reported.

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Communicable Disease Report

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Paul V. Effler, M.D., M.P.H., State Epidemiologist

January/February 2001

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- ◆ *Recommended Childhood Immunization Schedule – United States, January-December 2001 (Insert)*
- ◆ *Epidemiology and Prevention of Vaccine – Preventable Diseases – Registration*
- ◆ *Hawai'i Surveillance Alert: Poliomyelitis in the Dominican Republic and Haiti*
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